

**Techniques for Modeling Human Performance in Synthetic  
Environments:**  
*A Supplementary Review*



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Environments:  
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# Preface

A one-day meeting in March 1999 at Nottingham was convened to explore techniques for modeling human performance in synthetic environments. A list of participants is available as Appendix A. The presentations served as preliminary versions of some chapters of this book. The chapters were expanded based on the day's discussions, extended reflection, and further informal discussion.

Unlike a very similar, earlier review (Elkind, Card, Hochberg, & Huey, 1990) that noted the need to develop theory before applying such models, we are able to conclude that the models presented here are available and useful. The question remaining is how to improve them. We found that the resulting report was usable as a general update to Pew and Mavor's (1998) book, as it reviewed work that was done after their book. In particular, we were able to examine a wider variety of cognitive architectures developed outside the United States. This report also provides a detailed source of further ideas and suggestions for projects. We particularly draw the reader's attention to the importance of the integration and usability of models. Some implications apply more to the United Kingdom and Australia, but nearly all are general.

The report proved popular, so we updated it and looked for a publisher to help disseminate it more widely. Mike McNeese was instrumental in putting us in touch with the Human Systems Information Analysis Center (HSIAC). We are grateful to HSIAC for agreeing to publish this book and preparing it for publication. Comments from Jeffrey A. Landis, HSIAC Publications Manager and Editor, and Dr. Michael Fineberg, HSIAC Chief Scientist, have significantly improved this work. We appreciate their support.

Stephen Croker and Peter Lonsdale provided useful comments and helped assemble these materials. In addition to the workshop participants listed, we thank Angie Barnhill, Tim Barnhill, Christina Bartl, Kevin Gluck, Simon Goss, Ian Greig, Robin Hollands, Nicholas Howden, Jim Jansen, Andrew Lucas, Mike McNeese, Emma Norling, Ralph Rönquist, and Colin Sheppard for their help or comments. Brian Logan and Aaron Sloman, while not listed as authors, did provide material that substantially helped in the preparation of the book. This project was primarily supported by DERA (Bedford, UK) under contract LSA/E20307, and also by DSTO (Australia) and later by the (US) Office of Naval Research (contracts N000140110243, N000140110547, and N000140210021). The conclusions reported here, however, are solely the responsibility of the authors.

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January 2003



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